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# VIDEO GAMING MACHINE WITH PLAYER CHOSEN CELLS TO BE PLAYED

## BACKGROUND OF THE INVENTION

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### 1. Field of the Invention

[0001]    The invention relates to video gaming machines. In particular, the invention relates to games of chance.

### 2. Description of the Prior Art

10    [0002]    The video games known to the prior art frequently include the steps of displaying a plurality of symbols in a matrix of rows and columns, so as to simulate the appearance and function of the reels found in traditional mechanical slot machines, and issuing a prize in response to a predetermined winning combination of symbols being displayed along particular predetermined "paylines." An example of such a prior art game is illustrated in U.S. Patent 6,261,178 to Bennett. However, such

15    games typically have pay lines which include a set number of cells to be played, i.e., the number cells to be played in any particular payline remains fixed regardless of the payline selected for play.

[0003]    There is a constant need in the industry for improving games

20    with innovative features to add interest and promote repetitive and continued use.

## SUMMARY OF THE INVENTION AND ADVANTAGES

[0004]    The invention includes the apparatus and readable medium that will execute the inventive method for playing a game that allows the player to select

the number of cells that will be played in the hope of randomly obtaining a winning combination within those cells.

[0005]     Instead of the past practice of allowing the player or operator to select only from a variety of predetermined paylines each of which include the same number of cells in which symbols appear, the subject invention allows the player to select and wager on one, some, or all of the total available cells. The various different numbers of cells to be played may have associated with each such number different odds for achieving a winning combination. The invention adds the additional dimension of changing the probabilistic distribution of symbols in the cells depending upon the number of cells selected by the player.

## BRIEF DESCRIPTION OF THE DRAWINGS

[0006]     Other advantages of the present invention will be readily appreciated as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings wherein:

[0007]     Figure 1 is a perspective view of a video game machine incorporating the subject invention;

[0008]     Figure 2 is a block diagram of the components of the gaming machine;

[0009]     Figure 3 is a presentation of a video display showing the various cells, symbols and indicators ;

[0010]     Figure 4 is a view like Figure 2 but showing the cells during the animated random selection of the symbols for each individual cell;

**[0011]** Figure 5 is a presentation showing the secondary event at the initiation thereof;

**[0012]** Figure 6 is a presentation of the secondary event showing the spaceship and pawnshop ;

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**[0013]** Figure 7 is a presentation of the interior of the pawnshop

**[0014]** Figure 8 is a block diagram of the controller used in the subject invention;

**[0015]** Figure 9 is an illustration of the moon symbol;

**[0016]** Figure 10 is an illustration of the earth symbol; and

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**[0017]** Figure 11 is a flow chart representing the steps of play.


## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

**[0018]** With reference to the drawings and in operation, the present invention provides a video slot gaming machine **10**. With reference to Figure 1, an

15 exemplary video gaming machine, generally shown at **10,** into which the present invention can be incorporated to improve the enjoyment of a video game and to thereby increase the amount of time that the video game is played by patrons of a gaming establishment. Figure 1 shows a general appearance of the video gaming machine **10** to which the present invention is applied. As shown in the Figure 1, the

20 machine **10** comprises a housing standing upright. The housing comprises a main body **3**, a top box **4** mounted on a top portion of the main body **3** and a door **5** attached to a front side of the main body **3** so as to be swingable between an open position and a closed position.

**[0019]** At a center portion of the front side of the main body **3**, there is

25 mounted a main display device **20** comprising a CRT, and below the display **20** is

provided an operation panel **6**. The operation panel **6** is attached to the door **5** so as to slope down in a forward direction of the machine **10**. Below the operation panel **6** and on a front side of the top box **4**, there are provided decoration panels **7a** and **7b** on which pictures, letters and the like representing a title of the machine **10** or the like

5    are illustrated.

[0020]          As shown in Figure 1, the operation panel **6** is provided, from a right end toward a left end thereof, with an insertion portion **8**, and an input or keyboard portion **9**. The insertion portion **8** is provided with a slot base integrally formed with a coin insertion portion and a bill insertion portion, as is well known in

10    the art. Note that the word coins includes coins or tokens.

[0021]          In the exemplary input portion generally indicated at **9**, four push button switches are provided as first input devices, each of which is capable of being depressed. The push button switches are selected as switches to be operated with particular high frequency during the game, so that theses switches are provided

15    on the operation panel **6**. For example, the push button switch at a lower left position of the four switches is operated for starting the game. The number of the push buttons provided at the input portion **9** and functions assigned to the push buttons can be properly changed.

[0022]          Figure 2 is a block diagram illustrating a schematic

20    configuration of a control system or game controller provided in the machine **10**. The game controller includes a central processing unit (CPU) **11**, a coin-bill management device **12**, a display processor **13**, a RAM **14** as a memory device and a ROM (or EPROM) **15**. The CPU **11** is mainly composed of a microprocessor unit and performs various calculations and motion control necessary for the progress of the game.

25    [0023]          The coin-bill management device **12** detects the insertion of a

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coin or token or bill from the coin insertion portion and the bill insertion portion of the insertion portion **8**, and performs a necessary process for managing the coin or bill. For example, the device **11** judges whether the medal and the slip are real or counterfeit, and keeps the medal and the slip judged as real while rejecting the medal

5 and the slip judged as counterfeit. The display processor **13** interprets commands issued from the CPU **11** and displays desirable images on the display **20**. The RAM **14** temporarily stores programs and data necessary for the progress of the game, and the ROM **15** stores, in advance, programs and data for controlling basic operation of the machine **10**, such as the booting operation thereof and game code and graphics.

10 **[0024]** The video gaming machine **10** as shown in Figures 1, 2, 3 and 4 further includes the display **20**, which is advantageously a display monitor display is mounted directly in the main body portion **3** of the housing.

**[0025]** The CPU **11** is electrically connected with a coordinate readout device **16** as well as the above mentioned pushbutton switches **9**. The coordinate

15 readout device **16** works as a second input device and comprises, for example, a so-called touch panel formed as a transparent panel and capable of issuing signals corresponding to the coordinates of a position touched by the player. The coordinate readout device **16** is closely put on the surface of the display **20**. In the CPU **11**, there is provided a random number generator **17** that generates random numbers used for

20 randomly selecting elements during game play, as described below.

**[0026]** With reference to Figures 1 and 3, the game controller **11** sends a signal to a display processor **13** for displaying a plurality of game elements or symbols **18, 19** (as shown separately in Figures 9 and 10) and **21-29** on the display **20**. The display **20** includes a cash-out button **31** such that when the cash-out button **31** is

25 depressed any accumulated winnings are paid to the player, this is preferably

implemented by a touch screen device. A paid meter keeps track of the amount of winnings paid out to the player per game. A won or win meter is displayed for informing the player the number of winning credits accumulated per game.

[0027]     The display **20** in the form of a touchscreen video display is included for displaying the plurality of symbols **18, 19** and **21** through **29** and as individually shown in Figures 9 and 10 in a matrix of rows and columns of cells **30**. As will be appreciated there are only nine cells illustrated but there are eleven symbols that can be utilized, therefore the additional two symbols are shown separately in Figures 9 and 10. The symbols **21, 24** and **27** are in the cells **30** of the first column, symbols **22, 25** and **28** are in the cells **30** of the second column, and symbols **23, 26** and **29** are in the cells **30** of the third column. Therefore, the symbols **21, 22** and **23** are in the top row, while the symbols **24, 25** and **26** are in the middle row, and the symbols **27, 28** and **29** are in the bottom row. The matrix thus includes nine cells **30** in three columns and three rows. It is recognized, however, that the number and geographical arrangement of the cells, as well as the number of available symbols, can be varied from this embodiment without detracting from the inventive aspects of the game; stated differently, the inventive aspects of the game are not dependent upon the geographical relationship or positioning of any cell relative to any of the others. Likewise, the total number of cells is similarly not critical to the inventive aspects of the game.

[0028]     As shown in Figures 3, 9 and 10, the symbols include representations of a person (Bill) **21**, a satellite **22**, a gold bag **23**, a pawnshop **24**, an ice planet **25**, a pawnshop operator **26**, a junk planet **27**, the moon (shown in Figure 9), earth (shown in Figure 10), a spaceship **29**, and a trigger planet **28** for initiating the secondary event hereinafter described.

[0029]     The random generator **17** is included for randomly generating a

symbol **18, 19** and **21-29** in each of the cells **30** entirely independently of the random

generation of a symbol **18, 19** and **21-29** or as in Figures 9 and 10 in each of the other

cells **30**. Video displays have been used in gaming machines to simulate the spinning

5    reels used in mechanical slot machines wherein one reel is used in each column.

However, in the subject invention every single cell **30** is randomly presented with a

symbol independently of the random selection of a symbol for any other cell **30**.

Accordingly, the display **20** is essentially a video display **20** arranged to simulate a

reel for each cell **30** with each cell capable of presenting any of the symbols **18, 19**

10    and **21-29**.

[0030]     However, as shown in Figure 8, the random generator **17**

includes a symbol processor **40** for changing the probabilistic distribution of symbols

**18, 19** and **21-29** available for random selection and presentation in each cell **30** in

response to the number of cells **30** selected by the player. In other words, the

15    probability of any particular symbol appearing in a cell changes in response to the

number of cells **30** selected by the player to be wagered upon for that particular play.

Said yet another way, the probabilistic distribution of symbols in the cells **30** varies in

relationship to the total number of cells **30** being played.  This is illustrated in the

following table:

## [0031] SYMBOL DISTRIBUTION

### NUMBER OF CELLS BEING PLAYED

| SYMBOL | 1 | 3 | 5 | 7 | 9 |
|--------|------|------|------|------|------|
| SYM1 | 10 | 10 | 60 | 70 | 90 |
| SYM2 | 20 | 20 | 60 | 70 | 90 |
| SYM3 | 40 | 50 | 80 | 80 | 90 |
| SYM4 | 90 | 90 | 90 | 80 | 90 |
| SYM5 | 110 | 100 | 90 | 90 | 90 |
| SYM6 | 110 | 130 | 100 | 110 | 90 |
| SYM7 | 150 | 150 | 120 | 120 | 90 |
| SYM8 | 150 | 140 | 130 | 120 | 100 |
| SYM9 | 160 | 150 | 130 | 120 | 100 |
| SYM10 | 160 | 160 | 140 | 140 | 100 |
| TR1 | 0 | 0 | 0 | 0 | 70 |
| TOTAL | 1000 | 1000 | 1000 | 1000 | 1000 |

[0032]     Thus, when playing only once cell a player has a ten in one thousand (10:1000) chance (or 1/1000) to get symbol.

[0033]     Figure 4 represents the cells **30** as the random generator **17** is in the process of selecting symbols **18, 19** and **21-29** to be displayed in each respective cell **30**, i.e., the cells **30** are blank or an animated blur of activity. However, it is to be understood that only the cells selected by the player will be spun into a blur of activity in selecting the symbols for only the selected cells.

[0034]     Continuing with Figure 8, a game control **34** is part of the CPU **11** software for awarding a prize in response to a predetermined winning combination of symbols **18, 19** and **21-29** being displayed on the display **20**. The game control **34** determines the presence of winning combinations of symbols **18, 19** and **21-29** in the cell or cells **30** selected by the player and makes various awards dependent upon the combination of symbols **18, 19** and **21-29** therein. The game control **34** includes pay-

table software **35** defining the winning combinations of symbols **18, 19** and **21-29** for each number of cells selected by the player **30**.

**[0035]** 9 SPOT PAYTABLE 1 COIN WAGERED PER SPOT
LUCKY SYMBOL DOUBLE PAYS

| SYMBOL NAME | #HIT 3 | #HIT 4 | #HIT 5 | #HIT 6 | #HIT 7,8,9 |
|---|---|---|---|---|---|
| SYM1 | 25 | 75 | 250 | 1000 | 5000 |
| SYM2 | 20 | 50 | 200 | 800 | 400 |
| SYM3 | 15 | 25 | 100 | 500 | 2500 |
| SYM4 | 12 | 25 | 100 | 500 | 2500 |
| SYM5 | 9 | 15 | 75 | 400 | 2000 |
| SYM6 | 9 | 15 | 75 | 400 | 2000 |
| SYM7 | 9 | 15 | 75 | 200 | 1000 |
| SYM8 | 0 | 12 | 50 | 200 | 1000 |
| SYM9 | 0 | 9 | 45 | 100 | 500 |
| SYM10 | 0 | 9 | 45 | 100 | 500 |
| TR1 | EVENT | EVENT | EVENT | EVENT | EVENT |

**[0036]**     As shown in Figure 8, the CPU **11** of the assembly includes a selector software **36** for allowing a player to select the number of cells **30** to be evaluated by the game control **34** to detect the presence of a winning combination once the random generator **17** has randomly selected a symbol for each cell **30**. The selector **36** includes a sensor **38** in the form of mechanical buttons **9**, a keyboard or a touchscreen feature of the video display **20** to allow the player to select a predetermined number of cells **30**. In other words, the player touches each and every cell to be selected and included in the total number selected. In the preferred embodiment, the predetermined number of cells **30** include one, three, five, seven or nine cells **30** for player selection via the selector **36**, and predetermined groupings or arrangements of the one or more cells **30** corresponding to each such predetermined number of cells **30**. Said another way, the player may select any three cells of the nine, or any combination of five, seven or nine, i.e., in any pattern or sequence. It is

within the scope of the invention to allow the player to select any number of cells **30** to play. It is further within the scope of the invention to allow the player to select via touching the screen which particular cell or cells **30** to play, i.e., cells in any position relative to one another. It is also within the scope of the invention to limit the players

5    selection to simply identify groups of cells 30 at play (i.e., if the player picks these cells **30** then they will in a center row).

[0037]      The random generator **17** software includes a lucky symbol generator **42** for selecting on each play one of the symbols **18, 19** and **21-29** as a lucky symbol for providing an increased prize in response to a winning combination

10    including the lucky symbol. As shown in Figures 3 and 4, a lucky symbol indicator **44** indicates which of the symbols **18, 19** and **21-29** has been selected by the lucky symbol generator **42** for the current play.

[0038]      A number indicator **46** is also shown in Figures 3 and 4 for indicating the number of cells **30** selected for play by the player. By pressing the

15    indicator **46**, the number of cells increments from 1 to 3 to 5 to 7 to 9 or in nice simple patterns. Also, a bet indicator **48** is used to establish and increase the amount of the player's wager. A help button **50** is included for seeking directions in playing the game, as well as a button **52** to allow player to view the games' pay-table.

[0039]      Along the left margin of the display **20** in Figures 3 and 4,

20    indicators are labeled for respectively indicating the total credits (i.e., prizes) won and awarded, the total bet, the amount won, and the amount paid. The credit indicator is presented for indicating the total number of credits the player possesses, i.e., accumulated. There is also an indicator showing the amount that can be wagered on each cell **30**, twenty-five cents as illustrated. The title of the game may also be

25    displayed on the video display.

**[0040]**     As described above in connection with Figure 1, the assembly also provides means for accepting a wager from a player, like the insertion portion **8** that includes a coin insertion portion and a bill insertion portion, that is, a coin acceptor, bill acceptor, electronic fund transfer card input, or other means commonly known and utilized in the field.

**[0041]**     As alluded to above and as shown in Figure 8, the CPU **11** or game control **34** has a secondary event mode or sub-programmer **54** for randomly selecting one of a plurality of positions and sending an object to one of the positions in response to a secondary event trigger in the primary mode. More specifically, in the preferred embodiment, the positions comprise representations of three planets **56** and the object comprises a space ship **58**, as shown in Figure 5. In response to a secondary event trigger **28** on a selected cell **30**, the display **20** shows the spaceship **58** traveling to one of the randomly selected planets **56**. The game control's **34** secondary event mode **54** and random generator **17** select a plurality of bonus values from a pool of bonus values, and randomly assign each selected bonus value to an item to be displayed on the planet. Thereafter, an item selector **60** is included defining the selector **36** for allowing the player to select, via the touchscreen feature of the video display **20**, a predetermined number of items from those items presented. The game control **34** secondary event mode **54** presents an evaluation station and includes a transfer device for moving the items through space to the evaluation station.

**[0042]**     As shown in Figure 6, the evaluation station comprises a pawnshop **62**. The transfer device comprises the loading of the items onto the spaceship **58** and the spaceship **58** delivering the items to the pawnshop **62**. The interior of the pawnshop **62** is shown with the pawnshop operator at the counter and the person, Bill, waiting for the evaluation of the items selected and brought from the

planets **56**. The event programmer **54** includes an award designator **64** for displaying various animation sequences in response to the bonus values assigned to the items selected and brought to the pawnshop evaluation station, and awarding credits to the player accordingly.

[0043]     As illustrated in the flow diagram of Figure 11, the invention also includes the method comprising the actions of executing the game as well as a readable recording medium recording a control program for playing a video slot machine game on a display.

[0044]     The method comprises the actions of a player selecting a number of the cells **30**, the player placing a wager on the selected number of the cells **30**, randomly generating and displaying in each cell **30** a symbol **18, 19** and **21-29** independently of the random generation of the symbols in each and any of the other cells **30**, and awarding a prize or triggering a secondary event in response to a predetermined winning combination of symbols **18, 19** and **21-29** or secondary event trigger being displayed in the cells selected by the player. The method includes the player selecting the number of cells **30** to be evaluated by the game control **34** to detect the presence of a winning combination **17**. An important additional action comprises the changing the probabilistic distribution of the symbols **18, 19** and **21-29** in the cells **30** in response to the number of cells **30** selected by the player.

[0045]     Many modifications and variations of the present invention are possible in light of the above teachings. The invention may be practiced otherwise than as specifically described within the scope of the appended claims